

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION CONCERNING
TRANSMITTAL OF COPY OF INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY
(CHAPTER I OF THE PATENT COOPERATION
TREATY)
(PCT Rule 44bis.1(c))

To:

DRAGSETH, John A.
Fish & Richardson P.C.
P.O. Box 1022
Minneapolis, Minnesota 55440-1022
ETATS-UNIS D'AMERIQUE

Date of mailing (*day/month/year*)
07 May 2009 (07.05.2009)

Applicant's or agent's file reference
16113-147WO1

IMPORTANT NOTICE

International application No.
PCT/US2007/082534

International filing date (*day/month/year*)
25 October 2007 (25.10.2007)

Priority date (*day/month/year*)
25 October 2006 (25.10.2006)

Applicant
GOOGLE INC. et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

Athina Nickitas-Etienne

Facsimile No. +41 22 338 82 70

e-mail: pt04.pct@wipo.int

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 16113-147WO1	FOR FURTHER ACTION		See item 4 below
International application No. PCT/US2007/082534	International filing date (<i>day/month/year</i>) 25 October 2007 (25.10.2007)	Priority date (<i>day/month/year</i>) 25 October 2006 (25.10.2006)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant GOOGLE INC.			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).

2. This REPORT consists of a total of 5 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70		Date of issuance of this report 28 April 2009 (28.04.2009) Authorized officer Athina Nickitas-Etienne e-mail: pt04.pct@wipo.int
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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US2007/082534

Box No. 1 Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

2. ☐ This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

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**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Claims	1-23	YES
	Claims	NONE	NO
Inventive step (IS)	Claims	1-23	YES
	Claims	NONE	NO
Industrial applicability (IA)	Claims	1-23	YES
	Claims	NONE	NO

2. Citations and explanations :

1 Reference is made in the present opinion to the following documents cited in the search report. The numbering is also retained in the further procedure:

D1 : "Problem 6-Mobile phones" ACM SPPC International Collegiate Programming Contest 2003 september 20, 2003

D2 : WO 2005/091825A2 (YAHOO! INC.) 06 OCTOBER 2005 (2005-10-06)

2. Novelty and Inventive Step

2.1 INDEPENDENT CLAIMS 1, 22, 23

2.1.1 The solution proposed in claims 1, 22, 23 of the present invention meet the PCT requirements for novelty(PCT Article 33(2)) and inventive step(PCT Article 33(3)) for the following reasons:

Document D1 discloses a shortcut method for typing text messages using the numerical phone keypad, wherein a dictionary of known words is used. After a sequence of digits is entered, the system checks for and displays all possible matches in the dictionary.

Document D2 discloses keyword recommendation for internet search engines, which includes providing keyword frequency data in computer readable media that indicate frequency counts of keywords used in past internet searches.

The technical feature of Claim 1 is characterized by ① receiving a plurality of text queries at a server from a plurality of users, ②generating a numerically equivalent query for each text query, ③generating a primary mapping between each numerically equivalent query and a text query having a substantially highest frequency of occurrence among text queries associated with the numerically equivalent query ④ outputting a primary mapped text query in response to receiving an associated numerically equivalent query transmitted from a user.

The technical feature of Claim 22 is characterized by ①means for generating a numerically equivalent query for a previously stored text query, ②a frequency calculator to calculate a frequency of occurrence for each stored text query, and ③a mapper to generate a mapping between the numerically equivalent query and a text query with a substantially highest frequency of occurrence.

-----To be continued-----

**WRITTEN OPINION OF THE
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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.
Continuation of:

Box No. V.

The technical feature of Claim 23 is characterized by (1) generating numerically equivalent queries based on text queries, (2) mapping a text query having a greatest frequency of occurrence among the text queries, and (3) outputting the mapped text query in response to receiving the correspondent numerically equivalent query from a user.

However, neither D1 nor D2 discloses the technical feature of claim 1, 22, 23. In other words, mapping between each numerically equivalent query and a text query having a substantially highest frequency of occurrence among text queries associated with the numerically equivalent query is shown neither D1 nor D2.

Therefore, the subject matter of present claims 1, 22, 23 differs from the prior arts, and this teaching is not rendered obviously from the prior arts. Thus the novelty of the subject matter claimed can be acknowledged (PCT Article 33(2)), and also the subject matter of the claims 1, 22, 23 appears to involve an intensive step in the sense of PCT Article 33(3) as well.

2.2 DEPENDENT CLAIMS 2-21

Claims 2-21 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step (PCT Article 33(2) and 33(3)).

3 INDUSTRIAL APPLICABILITY

Claims 1-23 meet the criteria of PCT Article 33(4) in the field of a web search using numerical inputs.

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:
DRAGSETH, John A.

Fish & Richardson P.C. P.O. Box 1022 Minneapolis
Minnesota 55440-1022 USA

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year) 14 JANUARY 2008 (14.01.2008)

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16113-147WO1

FOR FURTHER ACTION

See paragraph 2 below

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International filing date (day/month/year)
25 OCTOBER 2007 (25.10.2007)

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25 OCTOBER 2006 (25.10.2006)

International Patent Classification (IPC) or both national classification and IPC

G06F 17/30(2006.01)i

Applicant

GOOGLE INC. et al

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.
For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/KR



Korean Intellectual Property Office
920 Dunsan-dong, Seo-gu, Daejeon
302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Date of completion of this opinion

14 JANUARY 2008 (14.01.2008)

Authorized officer

CHEKAL Hyun

Telephone No. 82-42-481-5667

